WHAT IS CLAIMED IS:

1. A method of converting page description data specifying a print document into pixel data for an individual page employing a data processing system including a central processing unit, a first memory having a first data size and a first data transfer rate and a second memory having a second data size smaller than the first data size and a second data transfer rate faster than the first data transfer rate, the method comprising the steps of:

extracting a display list from the page description data;

allocating space within the first memory to serve as a page buffer;

dividing the page buffer within the first memory into a plurality of sub-bands, each sub-band having a data size smaller than the second data size;

for each sub-band within the page buffer

for each element of the display list rendering pixels within the current sub-band into a corresponding memory location within the second memory,

following the rendering step, transferring pixel data from the second memory to corresponding memory locations within the current sub-band of the page buffer;

following the rendering and transferring steps for all sub-bands, printing a page by transfer of data from the page buffer to a print engine.

2. The method of claim 1, further comprising the step of:

disposing the central processing unit and the second memory on the same integrated circuit.

3. The method of claim 1, further comprising the step of:

prior to the rendering step for each sub-band within the page buffer, copying display list elements that may render to the current sub-band to the second memory, and

wherein the rendering step employs the copy of display list elements stored in the second memory.

4. The method of claim 3, further comprising the step of:

prior to the rendering step for each sub-band within the page buffer, copying auxiliary data required by the display list elements that may render to the current sub-band to the second memory, and

wherein the rendering step employs the copy of auxiliary data stored in the second memory.

5. The method of claim 1, wherein the digital processing system includes a partitionable memory selectively partitionable between cache and directly addressable memory, the method further comprising the step of:

prior to the rendering step for a first sub-band partitioning the partitionable memory to include directly addressable memory to serve as the second memory.

6. The method of claim 1, further comprising the step of:

following transferring pixel data from the second memory to corresponding memory locations within the current sub-band of the page buffer, compressing the pixel data and storing the compressed pixel data in the first memory; and

the printing step includes recall and decompression of the compressed pixel data.